

Effective Date: Summer 2004-2005

Course Description

Prerequisite: A grade of "C" or better in both CHEM 1202 and CHEM 1302. Pre or Corequisite: Credit with a grade of "C" or better or registration in CHEM 2261. Basic organic chemistry laboratory. Fundamental concepts and operations of organic chemistry. (A grade of "C" or better is required to advance to any higher numbered chemistry course.)

Course Objectives

Students will:

1. Understand the role of functional groups in physical and chemical behavior.
2. Understand the principles of separation.
3. Understand the principles of purification.
4. Understand techniques used in identification.
5. Understand the use and application of instrumentation.
6. Understand the use and applications of laboratory equipment.

Procedures to Evaluate these Objectives

1. Prelaboratory worksheets
2. Lecture discussion
3. Laboratory reports
4. Midterm and final exam

Use of Results of Evaluation to Improve the Course

1. Student responses from in-class discussion will be used to provide immediate feedback to students on concept misunderstandings.
2. Prelaboratory worksheets will be graded with written evaluations and returned prior to turning in laboratory reports. Evaluation of students' understanding will be used to modify lecture.
3. Laboratory reports and midterms will be graded with written evaluation and returned. These evaluations will be used to better understand student difficulties with concepts.
4. All evaluation methods will constantly be monitored to determine if there is a more effective method of presenting the material.

Detailed Topical Outline

1. Use of literature
2. Basic Operations
3. Physical characteristics of organic compounds
4. Solubility principles
5. Simple purification methods
6. Simple separation methods
7. Operations for conducting chemical reactions